

CLAIMS

1. An electroluminescent element provided with layers of electroluminescent material interposed between anodes and cathodes, characterized in that it comprises:

an anode group formed by parallel arrangement of a plurality of anodes;

a bank group formed by parallel arrangement of banks intersecting with said anode group and having a height which prevents outflow of said electroluminescent material introduced during manufacture;

said electroluminescent material layers formed inbetween said banks; and

a cathode group wherein cathodes running in the longitudinal direction of said electroluminescent material layers are provided on said electroluminescent material layers and are separated electrically for each of said electroluminescent material layers by means of said banks.

2. The electroluminescent element according to claim 1, characterized in that said cathodes are formed in a continuous fashion over a side face of said banks facing in a prescribed direction, the top face of said banks, and said electroluminescent material layers.

3. The electroluminescent element according to claim 1, characterized in that the angle formed between at least one side face of said banks and the face on which said banks are installed is an acute angle.

4. The electroluminescent element according to claim 1, characterized in that the angle formed between at least one side face of said banks and top face thereof is an acute angle.

5. The electroluminescent element according to claim 1, characterized in that said electroluminescent material layers are constituted by light-emitting layers and/or charge transporting layers.

6. The electroluminescent element according to claim 5, characterized in that said light-emitting layers emitting light in each of the primary colours for the purpose of providing a colour display are arranged sequentially.

7. The electroluminescent element according to claim 1, characterized in that each of the anodes constituting said anode group and each of the cathodes constituting said cathode group are connected individually, further comprising means for providing simple matrix driving of said electroluminescent element.

8. A method for manufacturing an electroluminescent element provided with layers of electroluminescent material interposed between anodes and cathodes, characterized in that it comprises the steps of:

forming an anode group by parallel arrangement of a plurality of anodes on a substrate;

forming a bank group by parallel arrangement of banks intersecting with said anode group and having a height which prevents outflow of said electroluminescent material in an electroluminescent material forming step;

forming electroluminescent material layers by  
introducing a liquid of said electroluminescent material  
inbetween said banks; and

forming a cathode group wherein cathodes are  
5 electrically separated by means of said banks, by depositing  
cathode material onto said electroluminescent material layers  
from a direction which forms a prescribed angle with the  
longitudinal direction of said banks.

10 9. The method for manufacturing an electroluminescent  
element according to claim 8, characterized in that said banks  
are formed such that the angle between the side faces thereof and  
the face on which said banks are installed is a right angle, and  
said cathode group is formed by depositing cathode material by  
oblique vapour deposition from a direction confronting said side  
15 faces, or a direction perpendicular to the vertical direction of  
said banks.

10. The method for manufacturing an electroluminescent  
element according to claim 8, characterized in that said banks  
are formed such that the angle between at least one side face of  
20 said banks and the face on which said banks are installed is an  
acute angle, and said cathode group is formed by depositing  
cathode material by oblique vapour deposition from a direction  
confronting said one side face or the vertical direction of said  
banks.

25 11. The method for manufacturing an electroluminescent  
element according to claim 8, characterized in that said banks  
are formed such that the angle between at least one side face of

said banks and the top face thereof is an acute angle, and said cathode group is formed by vapour deposition from the vertical direction of said banks.

12. The method for manufacturing an electroluminescent element according to any one of claims 8 to 11, characterized in that non-glare treatment ~~and/or~~ antireflection treatment is carried out on the surface of said electroluminescent element.

13. The method for manufacturing an electroluminescent element according to claim 8, characterized in that the formation of said electroluminescent material layer is carried out by injecting and filling a liquid of electroluminescent material inbetween said banks by means of an ink-jet method.